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THE

**PIEDMONT NATURAL GAS COMPANY, INC.  
THE CAROLINAS PROPERTY**

**Depreciation Rate Study**

**As of October 31, 2004**

**Prepared for**

**Piedmont Natural Gas Company, Inc.  
Charlotte, North Carolina**

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March 16, 2005

Piedmont Natural Gas Company, Inc.  
Charlotte, North Carolina

We have made a study as of October 31, 2004 ("the study date"), of the annual depreciation (capital recovery) rates for the depreciable gas plant of Piedmont Natural Gas Company, Inc. ("Piedmont" or "the Company"), located in North Carolina and South Carolina ("the Carolinas Property"). This study was made to determine the appropriate book depreciation factors and rates to be applied to the plant in service to enable recovery of the plant investment, adjusted for net salvage, over its average remaining life, in connection with the requirement for periodic studies and the expected 2005 Piedmont rate case filing. The study procedures and results are summarized in this report.

As a firm, we adhere to the methodology, procedures, and standards requirements as set forth by the Uniform Standards of Professional Appraisal Practice ("USPAP"). However, this report provided for this service is not to be considered an appraisal under USPAP, nor should it be considered to be legal advice. This report is specific to your needs as the client and for the intended use stated. American Appraisal Associates, Inc., is not responsible for unauthorized use of its report.

The following definition of depreciation as used in this study is the same as that used by the Federal Energy Regulatory Commission for gas companies, and is essentially the same as that employed by the National Association of Regulatory Utility Commissioners:

Depreciation, as applied to depreciable gas plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of gas plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in art, changes in demand and requirements of public

authorities, and, in the case of natural gas companies, the exhaustion of natural resources.

Our report consists of

This letter, identifying the objective and extent of the study

A narrative report, presenting the results of the study, a general explanation of the study methods, and a summary of the detailed analysis of service life and net salvage

Exhibits, comprising

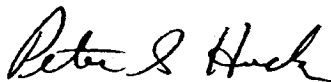
- Exhibit A - Summary of Proposed Depreciation Rates, showing the results of the study
- B - Summary of Comparison of Depreciation Rates, showing a comparison between the recommended rates and the present rates
- C - Summary of Comparison of Depreciation Factors, showing a comparison between the recommended depreciation factors and the present depreciation factors
- D - Assumptions and Limiting Conditions
- E - Certificate of Appraiser

The property included in this study comprises the depreciable gas plant in North Carolina and South Carolina, and corporate property. Property consists of LPG production, storage, transmission, distribution, and certain general plant accounts.

Based on the study, it is our opinion that the depreciation rates as recommended are reasonable and appropriate for Piedmont Natural Gas Company, Inc., depreciation.

Periodic studies of depreciation rates and practices are recommended for Piedmont property so that the most current service life experience, net salvage trends, replacement activity, and applicable technological and economic developments may be properly reflected in annual depreciation rates.

Respectfully submitted,  
AMERICAN APPRAISAL ASSOCIATES, INC.



March 16, 2005  
057800

Peter S. Huck, P.E., ASA  
Assistant Vice President and Principal,  
Financial Valuation Group

## INTRODUCTION

The study as of October 31, 2004 ("the study date"), summarized in this report was made of the annual depreciation (capital recovery) rates for the depreciable gas plant of Piedmont Natural Gas Company, Inc. ("Piedmont" or "the Company"), located in North Carolina and South Carolina ("the Carolinas Property"). This study was made to determine the appropriate book depreciation factors and rates to be applied to the plant in service to enable recovery of the plant investment, adjusted for net salvage, over its average remaining life, in connection with the requirement for periodic studies and the expected 2005 Piedmont rate case filing.

The following definition of depreciation as used in this study is the same as that used by the Federal Energy Regulatory Commission for gas companies, and is essentially the same as that employed by the National Association of Regulatory Utility Commissioners:

Depreciation, as applied to depreciable gas plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of gas plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in art, changes in demand and requirements of public authorities, and, in the case of natural gas companies, the exhaustion of natural resources.

The property included in this study comprises the depreciable gas plant in North Carolina and South Carolina, and corporate property. Property consists of LPG production, storage, transmission, distribution, and certain general plant accounts.

The scope of the study included a review and analysis of the average service lives and remaining lives of the property with due consideration given to functional and economic factors, in addition to physical factors. Also included in the study were a determination of net salvage and consideration of other factors relating to depreciation. In addition, the study included a review of the periods (years) used for the amortization of certain General Plant accounts.

## RESULTS OF THE STUDY

The recommended depreciation factors of remaining life, average service life and net salvage, and the resulting rates by account, are presented in Exhibit A. In addition, a comparison between the annual depreciation based on recommended rates and the annual depreciation resulting from present rates of the Company is shown in Exhibit B. The rates and annual depreciation in Exhibit B include the amortized accounts, with their depreciation based on their implied rates applied to plant balances. The implied rates were calculated for this report as the inverse of the recommended amortization life. A comparison between depreciation factors of the recommended rates and the depreciation factors of the present rates of the Company is shown in Exhibit C.

The recommended depreciation factors of average service life, net salvage, and amortization life result in composite functional group rates, based on plant balances as of October 31, 2004, and are shown as follows:

Functional Group	Present Rate (%)	Recommended Rate (%)
LPG Plant	2.35	2.62
Storage Plant	2.02	1.91
Transmission Plant	2.33	2.20
Distribution Plant	3.10	2.93
General Plant	8.33	9.79
Total Composite	3.43	3.43

Annual depreciation based on the rates resulting from the recommended depreciation factors of remaining life, average service life, net salvage, and amortization life as applied to the plant balances as of October 31, 2004, are summarized as follows:

Annual Depreciation			
	From Recommended Rates	From Present Rates	Difference
Gas Plant	\$65,529,295	\$65,652,706	(\$123,411)

The difference in annual depreciation using the recommended rates is negative 0.2%, based on the balances as of October 31, 2004. Depreciation rates compared with those of the prior study as of October 31, 1998, are primarily affected by an overall decrease in negative net salvage and decrease in the amortization life for PC Equipment. In particular, the decrease in negative net salvage was significant for Account 367 - Transmission Mains, Account 376 - Mains, and Account 380 - Services. Recommended average service lives of the depreciable accounts did not change significantly from the average service lives of the prior study. Decreases in amortization lives were also recommended for the other amortized accounts. Relative changes in the accumulated provision for depreciation also affected the depreciation rates compared with those of the prior study.

The depreciation factors recommended in this report are designed to recover, through the depreciation expense provision, the total cost of the plant, allowing for net salvage, over the average remaining life of the plant, based on the facts and conditions known at the time of the study.

An examination of the period of years being used by the Company to amortize certain General Plant accounts also was made. Based on the analysis of the nature of the property, economic lives, and the lives used by others in the industry, the recommended amortization lives are as follows:

<u>Amortization Accounts</u>	<u>Amortization Life (Years)</u>
391.0 - Office Furniture and Equipment	20.0
391.2 - PC Equipment	4.0
393.0 - Stores Equipment	20.0
394.0 - Tools, Shop, and Garage Equipment	20.0
395.0 - Laboratory Equipment	20.0
397.0 - Communications Equipment	18.0
398.0 - Miscellaneous Equipment	20.0



## CAPITAL RECOVERY METHOD

The following section discusses the recommendation that depreciation rates continue to be calculated using the remaining life method currently utilized by the Company.

The remaining life method is a generally accepted straight-line method and is the most frequently used method for calculating utility depreciation rates.

In addition to the remaining life method, another generally accepted straight-line method for calculating depreciation rates is the whole life method, which recovers the original cost of the plant investment, adjusted for net salvage, over the average service life of the plant.

The basic assumptions used in determining depreciation rates by the whole life method are (1) the property will be retired after a specific average life and (2) the amount of net salvage, based on gross salvage and cost of removal, is known. Neither assumption can be verified until all of the property units have been retired. Consequently, when the whole life method is used without modification in an environment in which either service life or net salvage is changing, full capital recovery on a timely basis is not assured.

The remaining life method compensates for the two assumptions used in the whole life method by recovering the original cost of the plant, adjusted for net salvage, over the average remaining life of the plant according to the following formula:

$$\text{Depreciation Rate} = \frac{100\% - \text{Net Salvage \%} - \text{Depreciation Reserve \%}}{\text{Average Remaining Life}}$$

While the remaining life method, like the average service life, is an informed estimate, it can be estimated with increased accuracy as the assets grow older and approach retirement.

Because the remaining life method is superior to the whole life method with respect to the objectives of capital recovery, it is recommended that depreciation rates continue to be calculated based on the remaining life method.

## DEPRECIATION RATE STUDY PROCEDURES

In addition to discussions with Company personnel to review general Company plans and practices, the completion of the depreciation rate study included the following major steps:

Assembly of plant accounting data, including aged investment, dated retirements, and salvage and cost of removal amounts

Computerized processing of the data to establish historical retirement experience patterns

Evaluation of the statistical retirement experience to determine average service lives and retirement patterns (mortality dispersion curves)

Consideration of other factors affecting depreciation, such as changing technology, regulatory and environmental requirements, and customer demands

Determination of the average remaining lives of the depreciable gas plant

Analysis of net salvage experience and the determination of net salvage

Conclusion of recommended depreciation factors and the calculation of depreciation rates and annual depreciation

These major procedural steps are discussed in the following sections.

### Assembly of Plant Accounting Data

To study the historical characteristics of average service life, average remaining life, and retirement dispersion pattern, plant accounting data were gathered for each plant account, including aged investment, dated retirements, and plant balances as of the study date. Historical salvage and cost of removal data by plant account, as experienced by the Company since 1984, were collected. The basic accounting data were furnished by the Company from its plant accounting records and prior depreciation rate studies.

## Computerized Data Processing

The plant accounting history is used to study service life experience and trends for various gas plant accounts. When the dates of installation and retirements are known and appropriately compiled, study procedures called actuarial methods can be used. When such data are not available in a reliable fashion, techniques are available to simulate actual vintages of retired property. These simulated techniques are sometimes called semi-actuarial methods and are commonly used and generally accepted life analysis techniques. As in prior studies of Piedmont depreciation, the actuarial method was utilized in the study.

The actuarial method used was the retirement rate method, which is also known as the annual rate method. The retirement rate method is typically used in utility actuarial analysis, and it is based on the rate at which retirements occur from various age groups. Specifically, this technique requires dated retirements, which are annual retirements arrayed by age at retirement, and aged investment, which is the study date plant balance arrayed by year of placement. These data are combined to develop the rate of retirements by age for a band of retirement years. From the retirement rates, the observed survivor curve is determined. Using standard curve fitting practices and standard survivor curves, such as the Iowa-type survivor curves, the observed survivor curve is smoothed and extended to a concluded survivor curve of retirement and service life.

The computerized studies of past service lives are important to the depreciation rate study, but are not solely conclusive. The depreciation analyst must study the results and exercise significant judgment in selecting the best measure of past average service life and retirement dispersion. This analysis is then modified to reflect the nature of the property, industry experience, and future conditions as they affect expectations in service lives. A pure mathematically driven procedure is never the correct approach to life analysis of utility property.

## Evaluation of Statistical Data

The results of the statistical analyses are indications of past experience and are studied to establish trends in historical service life, retirement dispersion patterns as indicated by Iowa-type curves, and net salvage. Used as aids in these determinations are indicators of

goodness-of-fit, a review of recorded accounting data, knowledge of the type of property involved, and the experience of others with similar property. Historical service lives, Iowa-type curves, and net salvage are then modified, as appropriate, to reflect future service conditions.

As indicated in the definition quoted earlier, depreciation is due to a number of causes. In establishing the depreciation factors of service life, remaining life, and net salvage, consideration must be given to expected future conditions not reflected in historical statistics. If the factors that determine the historical average service life will not change significantly in the future, the historical average service life will be a reasonable estimate of the future average service life. However, changing technology, company growth, environmental and regulatory requirements, and customer demands have a definite effect and must be considered in the determination of future average service life, remaining life, and net salvage.

### **Remaining Lives**

The depreciation rate calculation described earlier requires the determination of the average remaining life of each plant account. Remaining life for each plant account can be readily calculated from the age distribution of the property investment once the average service life is determined and the Iowa-type curve of retirement dispersion is established.

### **Net Salvage**

Data regarding salvage and cost of removal actually experienced by the Company during the last 21 years were collected and presented as a percent of the original cost of the plant being retired. The net salvage experience of the recently acquired North Carolina natural gas plant was included in the analysis. This historical information specific to the Company was examined for trends to arrive at net salvage. The examination was aided by American Appraisal Associates, Inc.'s, knowledge of the property and the experience of others.

For the Company, as well as for the gas utility industry, net salvage continues to be an important factor in the depreciation rate calculation. The cost of removal, which is in current dollars, is related to the original cost of the plant being removed, which is in historical dollars. Cost of removal, as a percentage of the cost of the plant being retired, generally has

been increasing due to rising labor costs. Salvage typically has been constant or decreasing due to the generally flat long-term scrap market prices and the retiring property becoming more obsolete, which results in less or no reuse. Also, as the plant investment matures and the service life lengthens, the age of retirements increases, adding to the relative cost of removal.

### **Depreciation Rate Calculation**

When all the elements of the depreciation rate calculation are known, the annual depreciation for each account is calculated by dividing future depreciation by the average remaining life. Future depreciation represents the original cost investment, adjusted for net salvage, not recovered as of the study date. This unrecovered cost is to be accrued over the average remaining life of the plant, using the depreciation rate developed under the remaining life method formula.

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## DETAILED ANALYSIS

A summary of our detailed analysis of Piedmont depreciation is presented in the following sections.

### General Comments

The present depreciation rates used by the Company are based on the previous depreciation rate study as of October 31, 1998. Depreciable plant balances in total increased during the period from October 31, 1998, to the current study date by approximately \$910,000,000, to about \$1,835,000,000, an increase of approximately 100% for the period. This large increase was due to both acquisitions and a relatively high rate of internal growth.

### LPG Plant

At the study date, the depreciable plant investment in the LPG Plant functional group was about \$2,000,000, with a depreciation reserve position of 50%.

The depreciation factors of the very small investment in Land Rights were based on considerations of the nature of the property and depreciation factors of the other land rights accounts. For LPG Equipment, the actuarial analysis provided a reasonable basis for life analysis. The curve shape and average service life of this account were concluded to be the same as those of the prior study, which were consistent with the actuarial analysis.

Net salvage as experienced by the Company was the starting point of the analysis of net salvage. Given the lack of data for these accounts, net salvage for the two accounts was developed from the nature of the property and industry experience, and was concluded to be the same as that of the prior study.

### Storage Plant

At the study date, the depreciable plant investment in the Storage Plant functional group was nearly \$37,000,000, with a reserve position of 72%. The property in this group consists of two LNG plants that were designed to provide gas on peak demand days.

For the accounts of this functional group, retirements were few and sporadic as they represent largely retirements of an interim nature and, therefore, the actuarial method did not provide a reasonable basis for life analysis. Generally, the nature of the property and industry experience provided a reasonable basis for life analysis. The curve shape and average service lives of these accounts were generally concluded to be the same as those of the prior study.

Using October 31, 2004, balances, the composite average service life of this functional group was 37.3 years, a slight increase from the average life results of the last study. Based on the age distribution of the plant, the concluded average service lives and mortality curves resulted in a weighted average remaining life of 18.01 years. The concluded average service lives and mortality dispersion curves are presented for each account in Exhibit A.

Net removal, as experienced by the Company, was the starting point of the analysis of future net removal. Because historical net salvage data were very limited, net salvage was concluded based on the nature of the property and the net salvage embedded in current rates. At ultimate retirement of the LNG facilities, dismantling cost will be significant, with little or no salvage expected. The net salvage factors concluded by account are presented for each account in Exhibit A. The net removal percentage for the functional group was calculated at negative 5.0%, rounded, which was more negative than the net removal cost in the prior study.

### **Transmission Plant**

At the study date, the depreciable plant investment in the Transmission Plant functional group was about \$369,000,000, with an allocated reserve position of 26%.

For the accounts of this functional group, retirements were generally few and sporadic and, therefore, the actuarial method, taken alone, did not provide a reasonable basis for life analysis. Generally, the nature of the property and industry experience, in conjunction with the available indications from the actuarial analysis, provided a reasonable basis for life analysis. The curve shape and average service lives of these accounts were concluded to be the same as or similar to those of the prior study.

Using October 31, 2004, balances, the composite average service life of this functional group was 51.7 years, a slight decrease from the average service life of the last study. Based on the age distribution of the plant, the concluded average service lives and mortality curves resulted in a weighted average remaining life of 42.05 years. The concluded average service lives and mortality dispersion curves are presented for each account in Exhibit A.

Net salvage, as experienced by the Company, was the starting point of the analysis of future net salvage. Because historical net salvage data were limited, net salvage was concluded by also considering the nature of the property, Company net salvage trends, and net salvage embedded in current rates. The net removal percentage for the functional group was calculated at negative 18%, rounded, which was less negative than the net removal cost in the last study.

### **Distribution Plant**

At the study date, the depreciable plant investment in the Distribution Plant functional group was about \$1,320,000,000, with an allocated reserve position of 35%.

The actuarial method was the starting point of the analysis of life for most of the investment of this functional group. The historical life experience of the Company for these accounts was analyzed within the context of the nature of the property, industry experience and trends, and lives embedded in current rates. The average service lives concluded, as in the prior study, generally are toward the high end of the range of industry experience.

Using October 31, 2004, balances, the composite average service life of this functional group was 53.1 years, essentially the same average service life as in the prior study. Based on the age distribution of the plant, the concluded average service lives and mortality curves resulted in a weighted average remaining life of 40.60 years. The concluded average service lives and mortality dispersion curves are presented for each account in Exhibit A.

Net removal, as experienced by the Company since 1984, was the starting point of the analysis of future net removal, and it generally provided a reasonable basis for the net salvage analysis. The two accounts that contain the majority of the investment, Mains and Services, experienced decreased net salvage in recent years. The net salvage experience was given



considerable weight in the net salvage analysis. When an account had inadequate experience to form a reasonable basis for analysis, net salvage was concluded based on nature of the property and industry experience and trends.

As weighted by study date balances, the resulting composite net salvage for the Distribution Plant functional group was negative 54%; this composite net salvage is 6% less negative than that in the prior study.

### **General Plant**

Because they are being amortized, many General Plant accounts are excluded from this depreciation rate study. The following General Plant accounts are included in the study:

- Account 390.0 - Structures and Improvements
- Account 391.1 - Computer Hardware/Software
- Account 391.3 - Customer Information System
- Account 391.4 - Client Server Applications
- Account 396.0 - Power Operated Equipment
- Account 399.0 - Other Tangible Property

At the study date, the depreciable plant investment of these accounts was nearly \$107,000,000, with a reserve position of 48%.

Except for the Power Operated Equipment account of this functional group, the actuarial method did not provide an adequate basis for life analysis, because historical retirement experience was sporadic or limited in nature, which is as expected given the nature of the property. When the actuarial method was not considered, due consideration was given to the nature of the property, previous study results, and industry experience in developing the recommended life and dispersion curve for the accounts of this functional group.

Data were available for Power Operated Equipment for a life analysis using the actuarial method. The life indication from the data was similar to that found in the prior study, but with an increase in service life to 14 years.

The investment in Account 399.0, Other Tangible Property, was replaced by investment made in Account 391.4, Client Server Applications, with the retirement of the entire account to be recorded in 2005. For the purpose of this study, the depreciation reserve of Account 399.0 was adjusted to an amount that resulted in the investment to be fully recovered by a transfer of depreciation reserve from Account 391.4. This is a reasonable treatment for the circumstance of the entire retirement of Account 399.0.

Based on the concluded average service lives by account, the composite average service life for this functional group was the same as that of the prior study.

Net salvage, as experienced by the Company, supported the overall conclusion of zero salvage for these accounts, except for Power Operated Equipment. Net salvage recommendations for these other accounts were concluded based on the available Company experience, the nature of the property, and industry experience.

The salvage experience provided a reasonable basis for analysis for Power Operated Equipment. Based on the Company's experience, the concluded net salvage for this account was 18%.

Concluded average service lives, mortality dispersion curves, and salvage are presented for each account in Exhibit A.

### **Amortized General Plant**

The period of years being used by the Company to amortize certain General Plant accounts was also examined, and recommendations of necessary changes were made.

Based on the analysis of the nature of the property, economic lives, and the lives used by others in the industry, amortization periods that are shorter than the present amortization periods are recommended. For example, the recommended amortization period for Account 391.2 - PC Equipment was based on the current four-year replacement policy of the Company.

Based on the review, the recommended amortization periods for the amortization accounts are as follows:

Amortization Accounts	Present Amortization Period (Years)	Recommended Amortization Period (Years)
391.0 - Office Furniture and Equipment	24.0	20.0
391.2 - PC Equipment	6.0	4.0
393.0 - Stores Equipment	35.0	20.0
394.0 - Tools, Shop, and Garage Equipment	35.0	20.0
395.0 - Laboratory Equipment	25.0	20.0
397.0 - Communications Equipment	20.0	18.0
398.0 - Miscellaneous Equipment	27.0	20.0

**EXHIBIT A**

**Summary of Proposed Depreciation Rates**

**(1 page)**

## American Appraisal Associates

PIEDMONT NATURAL GAS - CAROLINAS  
GAS PLANT  
PROPOSED DEPRECIATION RATES  
AT OCTOBER 31, 2004

Account Number	Account Name	Plant Balance 10/31/2004 \$	Book Reserve 10/31/2004 \$	Reserve Ratio %	Curve Type	ASL Years	Remaining Life Years	Net Salvage %	Proposed Depreciation Rate %	Proposed Annual Depreciation \$
<b>LPG PLANT</b>										
304.2	Land Rights	1,261	40	3.13	S5	45.0	15.32	0.0	6.32	80
311.0	LPG Equipment	1,963,200	982,411	50.04	S5	35.0	17.16	5.0	2.62	51,436
	Subtotal	1,964,460	982,451	50.01		35.0	17.16	5.0	2.62	51,516
<b>STORAGE PLANT</b>										
361.0	Structures & Improvements	4,918,755	3,359,057	68.29	S5	38.0	19.57	0.0	1.62	79,684
362.0	Gas Holders	10,667,047	7,229,103	67.77	S5	38.0	15.29	-10.0	2.76	294,410
363.0	Purification Equipment	2,243,819	1,485,280	66.19	S5	38.0	18.52	-5.0	2.10	47,120
363.1	Liquification Equipment	3,474,579	2,750,915	79.17	S5	38.0	17.82	-5.0	1.45	50,381
363.2	Vaporizing Equipment	8,322,226	6,897,220	82.88	S5	36.0	19.38	-5.0	1.14	94,873
363.3	Compressor Equipment	3,752,578	2,375,815	63.31	S5	38.0	22.18	0.0	1.65	61,918
363.4	LNG M&R Equipment	689,456	535,485	77.67	S5	36.0	11.47	-5.0	2.38	16,409
363.5	Other Equipment	2,705,393	1,724,125	63.73	S5	35.0	17.34	0.0	2.09	56,543
	Subtotal	36,773,853	26,357,000	71.67		37.3	18.01	-4.9	1.91	701,338
<b>TRANSMISSION PLANT</b>										
365.12	Land Rights	28,250,687	5,562,380	19.69	R5	60.0	48.84	0.0	1.64	463,311
367.0	Mains	281,465,234	76,568,276	27.20	S4	55.0	44.60	-25.0	2.19	6,164,089
368.0	Compressor Station Equipment	30,577,760	6,761,916	22.11	R4	35.0	28.85	0.0	2.70	825,600
369.0	M & R Station Equipment	29,092,354	7,400,527	25.44	R2	43.0	35.13	-5.0	2.26	657,487
	Subtotal	369,386,036	96,293,099	26.07		51.7	42.05	-18.4	2.20	8,110,487
<b>DISTRIBUTION PLANT</b>										
374.2	Land Rights	2,918,827	250,829	8.59	R5	60.0	53.61	0.0	1.71	49,912
375.0	Structures & Improvements	1,219,725	416,945	34.18	R3	45.0	27.64	0.0	2.38	29,029
376.0	Mains	667,725,576	259,705,383	38.89	R4	55.0	40.83	-60.0	2.97	19,831,450
378.0	M & R Station Equipment	10,386,247	2,764,241	26.61	R1.5	43.0	34.44	-10.0	2.42	251,347
379.0	City Gate M & R Sta Equipment	14,973,369	4,799,708	32.05	R2.5	45.0	32.96	-5.0	2.21	330,911
380.0	Services	479,238,392	161,429,199	33.68	R3	55.0	44.08	-70.0	3.09	14,808,466
381.0	Meters	90,121,381	23,737,168	26.34	R2	42.0	30.14	0.0	2.44	2,198,962
381.1	Meter Accessories	2,071,765	397,325	19.18	S0	25.0	18.19	0.0	4.44	91,986
382.0	Meter Installations	14,784,089	1,609,447	10.89	R3	45.0	41.20	-5.0	2.28	337,077
383.0	House Regulators	13,428,134	4,548,597	33.87	R4.3	50.0	33.77	0.0	1.96	263,191
385.0	Industrial M & R Station Eqmt	22,529,806	6,774,773	30.07	R1.5	45.0	34.48	-2.0	2.09	470,873
386.0	Other Property on Cust Premises	743,304	743,304	100.00	R3	40.0	15.78	-15.0	0.00	0
387.0	Other Equipment	16,151	16,151	100.00	R3	25.0	1.03	0.0	0.00	0
	Subtotal	1,320,156,766	467,193,068	35.39		53.1	40.60	-54.1	2.93	38,663,204
<b>GENERAL PLANT</b>										
390.0	Structures & Improvements	35,490,194	10,489,822	29.56	R4	45.0	32.74	0.0	2.15	763,039
391.1	Computer Hardware/Software	12,166,548	8,580,230	70.52	R4	10.0	3.92	0.0	7.52	914,924
391.3	Customer Information System	16,954,692	14,384,344	84.84	R5	12.0	1.99	0.0	7.62	1,291,948
391.4	Client Server Applications	32,642,388	10,864,094	33.28	R5	10.0	6.26	0.0	10.66	3,479,679
396.0	Power Operated Equipment	7,806,967	5,242,401	67.15	L3	14.0	7.30	18.0	2.03	158,481
399.0	Other Tangible Property	1,600,231	1,600,231	100.00	R3	10.0	2.32	0.0	0.00	0
	Subtotal	106,661,021	51,161,121	47.97		14.4	7.88	1.4	6.29	6,608,071
	Grand Total - Depreciated	1,834,942,136	641,986,739	34.99		45.4	34.28	-36.4	2.95	54,134,616
<b>GENERAL PLANT - Amortized</b>										
391.0	Office Furniture & Equipment	10,781,189	6,399,156						Amortization Life	20.0
391.2	PC Equipment	36,846,824	31,573,160							4.0
393.0	Stores Equipment	151,715	92,645							20.0
394.0	Tools, Shop, and Garage Eqmt	13,049,442	4,155,542							20.0
395.0	Laboratory Equipment	773,556	254,882							20.0
397.0	Communications Equipment	15,507,077	4,509,737							18.0
398.0	Miscellaneous Equipment	1,659,701	385,499							20.0
	Total - Amortization	78,769,504	47,370,621							

**EXHIBIT B**  
**Summary of Comparison of Depreciation Rates**

**(1 page)**

## EXHIBIT\_PSH-3

## American Appraisal Associates

PIEDMONT NATURAL GAS - CAROLINAS  
GAS PLANT  
COMPARISON OF DEPRECIATION RATES  
AT OCTOBER 31, 2004

Account Number	Account Name	Plant Balance 10/31/2004 \$	Book Reserve 10/31/2004 \$	Reserve Ratio %	Present Depreciation Rate %	Present Annual Depreciation \$	Proposed Depreciation Rate %	Proposed Annual Depreciation \$	Net Change \$
<b>LPG PLANT</b>									
304.2	Land Rights	1,261	40	3.13	1.50	19	6.32	80	61
311.0	LPG Equipment	1,963,200	982,411	50.04	2.35	46,135	2.62	51,436	5,301
	Subtotal	1,964,460	982,451	50.01	2.35	46,154	2.62	51,516	5,362
<b>STORAGE PLANT</b>									
361.0	Structures & Improvements	4,918,755	3,359,057	68.29	1.94	95,424	1.62	79,684	(15,740)
362.0	Gas Holders	10,667,047	7,229,103	67.77	2.80	298,677	2.76	294,410	(4,267)
363.0	Purification Equipment	2,243,819	1,485,280	66.19	2.06	46,223	2.10	47,120	897
363.1	Liquefaction Equipment	3,474,579	2,750,915	79.17	1.91	66,364	1.45	50,381	(15,983)
363.2	Vaporizing Equipment	8,322,226	6,897,220	82.88	1.61	133,988	1.14	94,873	(39,115)
363.3	Compressor Equipment	3,752,578	2,375,815	63.31	0.26	9,757	1.65	61,918	52,161
363.4	LNG M&R Equipment	689,456	535,485	77.67	2.63	18,133	2.38	16,409	(1,724)
363.5	Other Equipment	2,705,393	1,724,125	63.73	2.73	73,857	2.09	56,543	(17,314)
	Subtotal	36,773,853	26,357,000	71.67	2.02	742,423	1.91	701,338	(41,085)
<b>TRANSMISSION PLANT</b>									
365.12	Land Rights	28,250,687	5,562,380	19.69	1.50	423,760	1.64	463,311	39,551
367.0	Mains	281,465,234	76,568,276	27.20	2.41	6,783,312	2.19	6,164,089	(619,223)
368.0	Compressor Station Equipment	30,577,760	6,761,916	22.11	2.66	813,368	2.70	825,600	12,232
369.0	M & R Station Equipment	29,092,354	7,400,527	25.44	1.99	578,938	2.26	657,487	78,549
	Subtotal	369,386,036	96,293,099	26.07	2.33	8,599,378	2.20	8,110,487	(488,891)
<b>DISTRIBUTION PLANT</b>									
374.2	Land Rights	2,918,827	250,829	8.59	1.71	49,912	1.71	49,912	0
375.0	Structures & Improvements	1,219,725	416,945	34.18	2.77	33,786	2.38	29,029	(4,757)
376.0	Mains	667,725,576	259,705,383	38.89	3.15	21,033,356	2.97	19,831,450	(1,201,906)
378.0	M & R Station Equipment	10,386,247	2,764,241	26.61	2.05	212,918	2.42	251,347	38,429
379.0	City Gate M & R Sta Equipment	14,973,369	4,799,708	32.05	2.01	300,965	2.21	330,911	29,946
380.0	Services	479,238,392	161,429,199	33.68	3.35	16,054,486	3.09	14,808,466	(1,246,020)
381.0	Meters	90,121,381	23,737,168	26.34	2.30	2,072,792	2.44	2,198,962	126,170
381.1	Meter Accessories	2,071,765	397,325	19.18	5.38	111,461	4.44	91,986	(19,475)
382.0	Meter Installations	14,784,089	1,609,447	10.89	2.23	329,685	2.28	337,077	7,392
383.0	House Regulators	13,428,134	4,548,597	33.87	1.89	253,792	1.96	263,191	9,399
385.0	Industrial M & R Station Eqmt	22,529,806	6,774,773	30.07	2.18	491,150	2.09	470,873	(20,277)
386.0	Other Property on Cust Premises	743,304	743,304	100.00	0.00	0	0.00	0	0
387.0	Other Equipment	16,151	16,151	100.00	0.00	0	0.00	0	0
	Subtotal	1,320,156,766	467,193,068	35.39	3.10	40,944,303	2.93	38,663,204	(2,281,099)
<b>GENERAL PLANT</b>									
390.0	Structures & Improvements	35,490,194	10,489,822	29.56	2.25	798,529	2.15	763,039	(35,490)
391.0	Office Furniture & Equipment	10,781,189	6,399,156	59.35	3.82	411,841	5.00	539,059	127,218
391.1	Computer Hardware/Software	12,166,548	8,580,230	70.52	10.05	1,222,738	7.52	914,924	(307,814)
391.2	PC Equipment	36,846,824	31,573,160	85.69	17.05	6,282,384	25.00	9,211,706	2,929,322
391.3	Customer Information System	16,954,692	14,384,344	84.84	8.54	1,447,931	7.62	1,291,948	(155,983)
391.4	Client Server Applications	32,642,388	10,864,094	33.28	10.00	3,264,239	10.66	3,479,679	215,440
393.0	Stores Equipment	151,715	92,645	61.06	2.79	4,233	5.00	7,586	3,353
394.0	Toos, Shop, and Garage Eqmt	13,049,442	4,155,542	31.84	3.60	469,780	5.00	652,472	182,692
395.0	Laboratory Equipment	773,556	254,882	32.95	4.05	31,329	5.00	38,678	7,349
396.0	Power Operated Equipment	7,806,967	5,242,401	67.15	6.88	537,119	2.03	158,481	(378,638)
397.0	Communications Equipment	15,507,077	4,509,737	29.08	5.05	783,107	5.56	862,193	79,086
398.0	Miscellaneous Equipment	1,659,701	385,499	23.23	4.05	67,218	5.00	82,985	15,767
399.0	Other Tangible Property	1,600,231	1,600,231	100.00	0.00	0	0.00	0	0
	Subtotal - Depreciated/Amortized	185,430,525	98,531,742	53.14	8.33	15,320,448	9.79	18,002,750	2,682,302
	Total - Depreciated/Amortized	1,913,711,640	689,357,360	36.02	3.43	65,652,706	3.43	65,529,295	(123,411)

**EXHIBIT C**

**Summary of Comparison of Depreciation Factors**

**(1 page)**



## EXHIBIT\_PSH-3

## American Appraisal Associates

PIEDMONT NATURAL GAS - CAROLINAS  
GAS PLANT  
PROPOSED DEPRECIATION FACTORS  
AT OCTOBER 31, 2004

Account Number	Account Name	Plant Balance	Book Reserve	Reserve Ratio	Present Factors			Proposed Factors		
		10/31/2004	10/31/2004		Curve Type	ASL	Net Salvage	Curve Type	ASL	Net Salvage
		\$	\$	%		Years	%		Years	%
<b>LPG PLANT</b>										
304.2	Land Rights	1,261	40	3.13	S5	65.0	0.0	S5	45.0	0.0
311.0	LPG Equipment	1,963,200	982,411	50.04	S5	35.0	5.0	S5	35.0	5.0
	Subtotal	1,964,460	982,451	50.01		35.0	5.0		35.0	5.0
<b>STORAGE PLANT</b>										
361.0	Structures & Improvements	4,918,755	3,359,057	68.29	S5	38.0	0.0	S5	38.0	0.0
362.0	Gas Holders	10,667,047	7,229,103	67.77	S5	36.0	0.0	S5	38.0	-10.0
363.0	Purification Equipment	2,243,819	1,485,280	66.19	S5	38.0	0.0	S5	38.0	-5.0
363.1	Liquidification Equipment	3,474,579	2,750,915	79.17	S5	38.0	0.0	S5	38.0	-5.0
363.2	Vaporizing Equipment	8,322,226	6,897,220	82.88	S5	36.0	0.0	S5	36.0	-5.0
363.3	Compressor Equipment	3,752,578	2,375,815	63.31	S5	38.0	-5.0	S5	38.0	0.0
363.4	LNG M&R Equipment	689,456	535,485	77.67	S5	36.0	-5.0	S5	36.0	-5.0
363.5	Other Equipment	2,705,393	1,724,125	63.73	S5	35.0	0.0	S5	35.0	0.0
	Subtotal	36,773,853	26,357,000	71.67		36.7	-0.6		37.3	-4.9
<b>TRANSMISSION PLANT</b>										
365.12	Land Rights	28,250,687	5,562,380	19.69	S5	65.0	0.0	R5	60.0	0.0
367.0	Mains	281,465,234	76,568,276	27.20	S4	55.0	-30.0	S4	55.0	-25.0
368.0	Compressor Station Equipment	30,577,760	6,761,916	22.11	S5	38.0	0.0	R4	35.0	0.0
369.0	M & R Station Equipment	29,092,354	7,400,527	25.44	R0.5	45.0	-5.0	R2	43.0	-5.0
	Subtotal	369,386,036	96,293,099	26.07		52.7	-22.4		51.7	-18.4
<b>DISTRIBUTION PLANT</b>										
374.2	Land Rights	2,918,827	250,829	8.59	R5	65.0	0.0	R5	60.0	0.0
375.0	Structures & Improvements	1,219,725	416,945	34.18	R3	45.0	0.0	R3	45.0	0.0
376.0	Mains	667,725,576	259,705,383	38.89	R4	55.0	-65.0	R4	55.0	-60.0
378.0	M & R Station Equipment	10,386,247	2,764,241	26.61	R0.5	45.0	-5.0	R1.5	43.0	-10.0
379.0	City Gate M & R Sta Equipment	14,973,369	4,799,708	32.05	R0.5	45.0	-5.0	R2.5	45.0	-5.0
380.0	Services	479,238,392	161,429,199	33.68	R2	55.0	-80.0	R3	55.0	-70.0
381.0	Meters	90,121,381	23,737,168	26.34	R2.5	45.0	0.0	R2	42.0	0.0
381.1	Meter Accessories	2,071,765	397,325	19.18	S-0.5	25.0	0.0	S0	25.0	0.0
382.0	Meter Installations	14,784,089	1,609,447	10.89	R2.5	45.0	0.0	R3	45.0	-5.0
383.0	House Regulators	13,428,134	4,548,597	33.87	L1.5	50.0	0.0	R4.3	50.0	0.0
385.0	Industrial M & R Station Eqmt	22,529,806	6,774,773	30.07	R0.5	45.0	-2.0	R1.5	45.0	-2.0
386.0	Other Property on Cust Premises	743,304	743,304	100.00		40.0	-15.0	R3	40.0	-15.0
387.0	Other Equipment	16,151	16,151	100.00		25.0	0.0	R3	25.0	0.0
	Subtotal	1,320,156,766	467,193,068	35.39		53.5	-60.4		53.1	-54.1
<b>GENERAL PLANT</b>										
390.0	Structures & Improvements	35,490,194	10,489,822	29.56	R2.5	45.0	0.0	R4	45.0	0.0
391.1	Computer Hardware/Software	12,166,548	8,580,230	70.52	R4	10.0	0.0	R4	10.0	0.0
391.3	Customer Information System	16,954,692	14,384,344	84.84	R4	12.0	0.0	R5	12.0	0.0
391.4	Client Server Applications	32,642,388	10,864,094	33.28		10.0	0.0	R5	10.0	0.0
396.0	Power Operated Equipment	7,806,967	5,242,401	67.15	L2	12.0	20.0	L3	14.0	18.0
399.0	Other Tangible Property	1,600,231	1,600,231	100.00	SQ	27.0	0.0	R3	10.0	0.0
	Subtotal	106,661,021	51,161,121	47.97		14.4	1.8		14.4	1.4
	Grand Total - Depreciated	1,834,942,136	641,986,739	34.99		45.7	-40.7		45.4	-36.4
<b>GENERAL PLANT - Amortized</b>										
					Amortization Life			Amortization Life		
391.0	Office Furniture & Equipment	10,781,189	6,399,156		24.0			20.0		
391.2	PC Equipment	36,846,824	31,573,160		6.0			4.0		
393.0	Stores Equipment	151,715	92,645		35.0			20.0		
394.0	Toos, Shop, and Garage Eqmt	13,049,442	4,155,542		35.0			20.0		
395.0	Laboratory Equipment	773,556	254,882		25.0			20.0		
397.0	Communications Equipment	15,507,077	4,509,737		20.0			18.0		
398.0	Miscellaneous Equipment	1,659,701	385,499		27.0			20.0		
	Total - Amortization	78,769,504	47,370,621							

**EXHIBIT D**

**Assumptions and Limiting Conditions**

**(2 pages)**

## ASSUMPTIONS AND LIMITING CONDITIONS

This service was performed with the following general assumptions and limiting conditions.

To the best of our knowledge, all data, including historical financial data, if any, relied upon in reaching opinions and conclusions as set forth in this report are true and accurate. Although gathered from sources that we believe are reliable, no guarantee is made nor liability assumed for the truth or accuracy of any data, opinions, or estimates furnished by others that have been used in this analysis.

No responsibility is assumed for matters legal in nature. No investigation has been made of the title to or any liabilities against the property appraised. We have assumed that the owner's claim is valid, the property rights are good and marketable, and there are no encumbrances that cannot be cleared through normal processes, unless otherwise stated in the report.

The value or values presented in this report are based upon the premises outlined herein.

The date of value to which the conclusions and opinions expressed apply is set forth in the report. The value opinion presented therein is based on the status of the economy and on the purchasing power of the currency stated in the report as of the date of value.

This report has been made only for the use or uses stated, and it is neither intended nor valid for any other use.

Possession of this report or any copy thereof does not carry with it the right of publication. No portion of this report (especially any conclusion, the identity of any individuals signing or associated with this report or the firms with which they are connected, or any reference to the professional associations or organizations with which they are affiliated or the designations awarded by those organizations) shall be disseminated to third parties through prospectus, advertising, public relations, news, or any other means of communication without the written consent and approval of American Appraisal.

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Areas, dimensions, and descriptions of property, if any, used in this analysis have not been verified, unless stated to the contrary in the report. Any areas, dimensions, and descriptions of property included in the report are provided for identification purposes only, and no one should use this information in a conveyance or other legal document. Plats, if any, presented in the report are intended only as aids in visualizing the property and its environment. Although the material was prepared using the best available data, it should not be considered as a survey or scaled for size.

Unless stated to the contrary in the report, no environmental impact study has been ordered or made. Full compliance with all applicable laws and governmental regulations is assumed unless otherwise stated, defined, and considered in the report. We have also assumed responsible ownership and that all required licenses, consents, or other legislative or administrative authority from any applicable government or private entity organization either have been or can be obtained or renewed for any use that is relevant to this analysis.

**EXHIBIT E**  
**Certificate of Appraiser**

**(1 page)**

## CERTIFICATE OF APPRAISER

I certify that, to the best of my knowledge and belief

The statements of fact contained in this report are true and correct.

The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and represent the impartial and unbiased professional analyses, opinions, and conclusions of American Appraisal Associates, Inc.

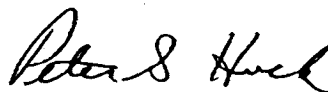
American Appraisal Associates, Inc., and I personally have no present or prospective interest in or bias with respect to the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.

The engagement of American Appraisal Associates, Inc., and myself personally in this assignment and compensation for American Appraisal Associates, Inc., are not contingent on the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.

The analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice and the Principles of Appraisal Practice and Code of Ethics of the American Society of Appraisers.

No one has provided me with significant professional assistance.

The American Society of Appraisers has a mandatory recertification program for all of its senior members. I am in compliance with the requirements of that program.



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Peter S. Huck, P.E., ASA